

CLAIMS

What is claimed is:

- 5 1. A method for externally identifying a particular caller,
said method comprising:

receiving a voice utterance for a caller at a server
external to a trusted telephone network; and

10 identifying a caller identity associated with said voice
utterance at said server, such that said caller identity is
transmittable within said trusted telephone network as an
authenticated identity of said caller for a call.

- 15 2. The method for externally identifying a particular caller
according to claim 1, wherein receiving a voice utterance further
comprises:

20 receiving said voice utterance through a secure channel
between said server and said trusted telephone network.

3. The method for externally identifying a particular caller
according to claim 1, further comprising:

25 receiving, at said server, a request for a caller identity
authentication service from said trusted telephone network; and

prompting said caller to provide said voice utterance.

4. The method for externally identifying a particular caller according to claim 1, wherein identifying a caller identity further comprises:

5 extracting speech characteristics from said voice utterance; and

comparing said speech characteristics with a plurality of voice samples stored for identifying a plurality of callers.

10 5. The method for externally identifying a particular caller according to claim 1, wherein said trusted telephone network comprises at least one public switching telephone network.

15 6. The method for externally identifying a particular caller according to claim 1, wherein said trusted telephone network comprises a private switching system.

7. The method for externally identifying a particular caller
20 according to claim 1, further comprising:

accessing said server from said trusted telephone network through an Internet connection.

25 8. The method for externally identifying a particular caller according to claim 1, further comprising:

accessing said server from said trusted telephone network through a private network connection.

9. The method for externally identifying a particular caller according to claim 1, further comprising:

transferring said caller identity to said trusted telephone network through a secure channel.

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(10) A system for externally identifying a particular caller, said system comprising:

a server system communicatively connected to a trusted telephone network by an external network;

means for receiving a voice utterance for a caller at said server system;

means for identifying a caller identity associated with said voice utterance;

means for transmitting said caller identity to said trusted telephone network as an authenticated identity of said caller for a call.

11. The system for externally identifying a particular caller according to claim 10, wherein said means for receiving a voice utterance further comprises:

means for receiving said voice utterance through a secure channel between said server system and said trusted telephone network.

12. The system for externally identifying a particular caller according to claim 10, further comprising:

means for receiving, at said server system, a request for a
5 caller identity authentication service from said trusted telephone network; and

means for prompting said caller to provide said voice
utterance.

13. The system for externally identifying a particular caller according to claim 10, wherein said means for identifying a caller identity further comprises:

15 means for extracting speech characteristics from said voice
utterance; and

means for comparing said speech characteristics with a plurality of voice samples stored for identifying a plurality of
20 callers.

14. The system for externally identifying a particular caller according to claim 10, wherein said trusted telephone network comprises at least one public switching telephone network.

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15. The system for externally identifying a particular caller according to claim 10, wherein said trusted telephone network comprises a private switching system.

16. The system for externally identifying a particular caller according to claim 10, wherein said external network is the Internet.
- 5 17. The system for externally identifying a particular caller according to claim 10, wherein said external network is a private network.
- 10 18. A computer program product for externally identifying a particular caller, said computer program product comprising:
10 a recording medium;
10 means, recorded on said recording medium, for enabling receipt of a voice utterance for a caller at a server system communicatively connected to a trusted telephone network via an external network;
- 15 means, recorded on said recording medium, for identifying a caller identity associated with said voice utterance;
- 20 means, recorded on said recording medium, for controlling transmission of said caller identity to said trusted telephone network as an authenticated identity of said caller for a call.
- 25 19. The computer program product for externally identifying a particular caller according to claim 18, further comprising:
25 means, recorded on said recording medium, said voice utterance through a secure channel between said server system and

said trusted telephone network.

20. The computer program product for externally identifying a particular caller according to claim 18, further comprising:

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means, recorded on said recording medium, for enabling receipt at said server system of a request for a caller identity authentication service from said trusted telephone network; and

10 means, recorded on said recording medium, for prompting said caller to provide said voice utterance.

21. The computer program product for externally identifying a particular caller according to claim 18, further comprising:

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means, recorded on said recording medium, for extracting speech characteristics from said voice utterance; and

20 means, recorded on said recording medium, for comparing said speech characteristics with a plurality of voice samples stored for identifying a plurality of callers.

22. A method for specifying telephone services for a particular caller, comprising:

detecting a call initiation condition from an origin device
5 at a trusted telephone network;

brokering a connection between said origin device and an external server enabled to perform a caller identity authentication service; and

10 responsive to receiving, from said external server, an authenticated caller identity of a caller utilizing said origin device, specifying services available to said caller according to said authenticated caller identity.

15 23. The method for specifying telephone services according to claim 22, wherein said server is accessible via a network outside said trusted telephone network.

20 24. The method for specifying telephone services according to claim 22, further comprising:

retrieving a caller profile for said authenticated caller identity; and

25 specifying a selection of services from among a plurality of services that are offered for said call according to said caller profile.

25. The method for specifying telephone services according to claim 22, wherein said authenticated caller identity is authenticated by a voice utterance of said caller.

5 26. The method for specifying telephone services according to claim 22, wherein brokering a connection further comprises:

110 transmitting a request for said caller identity authentication service via a signal gateway to a network for accessing said external server;

115 transferring a prompt for a voice utterance, received from said external server via a media gateway, to said origin device;

120 transferring a voice utterance by said caller through said media gateway to said network for accessing said external server; and

125 receiving said authenticated caller identity via said signal gateway at said trusted telephone network.

27. The method for specifying telephone services according to claim 22, wherein brokering a connection further comprises:

25 brokering a secure connection between said trusted telephone network and said external server.

28. A system for specifying telephone services for a particular caller, comprising:

a trusted telephone network for providing service to an
5 origin telephony device;

means for detecting a call initiation condition from said origin telephony device at said trusted telephone network;

10 means for brokering a connection between said origin device and a server external to said trusted telephone network to perform a caller identity authentication service; and

15 means responsive to receiving an authenticated caller identity of a caller utilizing said origin telephony device from said server, for specifying services available to said caller according to said authenticated caller identity.

20 29. The system for specifying telephone services according to claim 28, wherein said server is accessible via a network external to trusted telephone network.

30. The system for specifying telephone services according to claim 28, further comprising:

means for retrieving a caller profile for said authenticated
5 caller identity; and

means for specifying a selection of services from among a plurality of services that are offered for said call according to said caller profile.

31. The system for specifying telephone services according to claim 28, wherein said authenticated caller identity is authenticated by a voice utterance of said caller.

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32. The system for specifying telephone services according to claim 28, wherein said means for brokering a connection further comprises:

5 means for transmitting a request for said caller identity authentication service via a signal gateway to a network for accessing said server;

10 means for transferring a prompt for a voice utterance, received from said server via a media gateway, to said origin device;

15 means for transferring a voice utterance by said caller through said media gateway to said network for accessing said server; and

20 means for receiving said authenticated caller identity via said signal gateway at said trusted telephone network.

33. A computer program product for specifying telephone services for a particular caller, comprising:

a recording medium;

5 means, recorded on said recording medium, for detecting a call initiation condition from an origin telephony device at a trusted telephone network;

10 means, recorded on said recording medium, for brokering a connection between said origin device and a server external to said trusted telephone network to perform a caller identity authentication service; and

15 means, recorded on said recording medium, for specifying services available to said caller according to an authenticated caller identity received from said server to identify a caller utilizing said origin telephony device.

34. A method for informing a callee of a caller identity, comprising:

detecting a call initiation condition from an origin device
5 at a trusted telephone network;

brokering a connection between said origin device and an external server enabled to perform a caller identity authentication service; and

10 responsive to receiving, from said external server, an authenticated caller identity of a caller utilizing said origin device, transferring said authenticated caller identity to a destination device, such that a callee receiving said call at said destination device is provided with an identity of a party originating said call.

15 35. The method for informing a callee of a caller identity according to claim 34, further comprising:

20 filtering content of said authenticated caller identity before transfer to said destination device.

25 36. The method for informing a callee of a caller identity according to claim 35, further comprising:

filtering content of said authenticated caller identity according to filtering preferences associated with said authenticated caller identity.

37. The method for informing a callee of a caller identity according to claim 35, further comprising:

5 filtering content of said authenticated caller identity according to an identity of said callee.

38. The method for informing a callee of a caller identity according to claim 35, further comprising:

10 filtering said authenticated caller identity to block at least a portion of the content of said authenticated caller identity.

15 39. The method for informing a caller of a callee identity according to claim 34, further comprising:

20 responsive to said authenticated caller identity indicating a lack of identity, automatically initiating recording of said call.

40. A system for informing a callee of a caller identity, comprising:

a trusted telephone network for enabling telephone service;

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means for detecting a call initiation condition from an origin device at said trusted telephone network;

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means for detecting a connection between said origin device and an external server enabled to perform a caller identity authentication service; and

means responsive to receiving an authenticated caller identity of a caller utilizing said origin device from said external server, for transferring said authenticated caller identity to a destination device to identify said caller to a call.

15 41. The system for informing a callee of a caller identity according to claim 40, further comprising:

means for filtering content of said authenticated caller identity before transfer to said destination device.

20 42. The system for informing a callee of a caller identity according to claim 41, further comprising:

means for filtering content of said authenticated caller identity according to filtering preferences associated with said

authenticated caller identity.

43. The system for informing a callee of a caller identity according to claim 41, further comprising:

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means for filtering content of said authenticated caller identity according to an identity of said callee.

44. The system for informing a callee of a caller identity according to claim 41, further comprising:

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means for filtering said authenticated caller identity to block at least a portion of the content of said authenticated caller identity.

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45. The system for informing a caller of a callee identity according to claim 40, further comprising:

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means responsive to said authenticated caller identity indicating a lack of identity, for automatically initiating recording of said call.

46. A computer program product for informing a callee of a caller identity, comprising:

a recording medium;

5 means, recorded on said recording medium, for detecting a call initiation condition from an origin device at a trusted telephone network;

10 means, recorded on said recording medium, for brokering a connection between said origin device and an external server enabled to perform a caller identity authentication service; and

15 means, recorded on said recording medium, for transferring an authenticated caller identity received from said external server to a destination device to identify said caller utilizing said origin device.

20 47. The computer program product for informing a callee of a caller identity according to claim 46, further comprising:

means, recorded on said recording medium, for filtering content of said authenticated caller identity before transfer to said destination device.

48. The computer program product for informing a callee of a caller identity according to claim 41, further comprising:

means, recorded on said recording medium, for filtering
5 content of said authenticated caller identity according to
filtering preferences associated with said authenticated caller
identity.

49. The computer program product for informing a callee of a
10 caller identity according to claim 41, further comprising:

means, recorded on said recording medium, for filtering
content of said authenticated caller identity according to an
identity of said callee.

15 50. The computer program product for informing a callee of a
caller identity according to claim 41, further comprising:

means, recorded on said recording medium, for filtering said
20 authenticated caller identity to block at least a portion of the
content of said authenticated caller identity.

25 51. The computer program product for informing a caller of a
callee identity according to claim 46, further comprising:

means, recorded on said recording medium, for automatically
initiating recording of said call when said authenticated caller
identity indicates a lack of identity.

(52) A method for controlling caller identification, comprising:

receiving, from a trusted telephone network, an
authenticated caller identity for a caller at a telephony device,
5 wherein said caller identity is authenticated at a authentication
service accessible via a network external to said trusted
telephone network, wherein said trusted telephone network
initiates said authentication service; and

10 controlling output of said authenticated caller identity
from said telephony device, such that an individual with access
to said telephony device is informed of the identity of said
caller.

15 (53) A method for controlling a call, comprising:

receiving, at a telephony device, a secure communication
channel via a trusted telephone network to an authentication
service, wherein said trusted telephone network initiates said
20 authentication service; and

facilitating, from said telephony device, communications
between said authentication service and a caller, such that said
authentication service is enabled to authenticate an identity of
25 said caller.